



AMENDMENTS TO THE CLAIMS

Claim 1. (currently amended) Multiband Radio System, comprising:

a receiving branch (~~RX~~) and a transmitting branch (~~TX~~) respectively supporting more than one different frequency band, and

~~characterized by~~

a receiving/transmitting filter selector (~~RTFS~~) controlling radio frequency filters included within said receiving branch (~~RX~~) and said transmitting branch (~~TX~~), respectively, in receiving mode so that radio signals of a frequency band which are passed through in the receiving branch (~~RX~~) are blocked in the transmitting branch (~~TX~~).

Claim 2. (currently amended) Multiband Radio System according to claim 1,

wherein ~~characterized in that~~

each of said receiving and transmitting branches (~~RX, TX~~) comprises at least two radio frequency filters (~~RF1, RF2; TF1, TF2~~) which comprise passband and stop band functions, whereby within each of said receiving and transmitting branches (~~RX, TX~~) said passband and stop band functions of each of said radio frequency filters (~~RF1, RF2; TF1, TF2~~) are responsible for reception/transmission of a given frequency band being different from respective frequency bands of each of the other radio frequency filters (~~RF1, RF2; TF1, TF2~~), and

in said receiving mode the receiving branch (~~RX~~) is switched into a state for electrically connecting that radio frequency filter (~~RF1, RF2~~) being responsible for filtering radio signals of a first frequency band ~~between~~ into its ~~RF~~ radio frequency path, and the transmitting branch (~~TX~~) is switched into a state for electrically connecting a respective other one of said radio frequency Filters (~~TF1, TF2~~) being responsible for filtering radio signals of a second frequency

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band into its ~~RF~~ radio frequency path.

Claim 3. (currently amended) Multiband Radio System according to claim 1,
wherein~~characterized in that~~

within each of said receiving and transmitting branches (~~RX, TX~~) said radio frequency filters (~~RF1, RF2; TF1, TF2~~) are arranged in parallel and between at least one pair of multiplexer switches (~~RSW1, RSW2; TSW1, TSW2~~),

said multiplexer switches (~~RSW1, RSW2; TSW1, TSW2~~) being actuated by means of a respective band selection signal,

said receiving/transmitting filter selector (~~RTFS~~) receives a receive/transmit control signal (~~RTCS~~) and a primary band selection signal (~~BSS~~), and

said receiving/transmitting filter selector (~~RTFS~~) outputting at least two secondary band selection signals (~~BSS1, BSS2~~) being inputted to each of said pairs of multiplexer switches (~~RSW1, RSW2; TSW1, TSW2~~) of a respective one of said branches (~~RX, TX~~),

in said receiving mode of said arrangement said secondary band selection signals (~~BSS1; BSS2~~) controlling said pairs of multiplexer switches (~~RSW1, RSW2; TSW1, TSW2~~), to which they are inputted, in a way that, in a case, where a respective one of said secondary band selection signals (~~BSS1; BSS2~~) switches one of said pairs of its associated pairs of multiplexer switches (~~RSW1, RSW2; TSW1, TSW2~~) in a respective one of said branches (~~RX, TX~~) into a state for electrically connecting that radio frequency filter (~~RF1, RF2; TF1, TF2~~) being responsible for filtering radio signals of a first frequency band between said pair of multiplexer switches (~~RSW1, RSW2; TSW1, TSW2~~), at least one of the rest of said secondary band selection signals (~~BSS2; BSS1~~) switching said respective pairs of multiplexer switches (~~TSW1, TSW2;~~

~~RSW1, RSW2~~) of the respective other one of said branches ~~(TX; RX)~~ into a state for electrically connecting the radio frequency filter ~~(TF1, TF2; RF1, RF2)~~ being responsible for filtering radio signals of a second frequency band between said multiplexer switches ~~(TSW1, TSW2; RSW1, RSW2)~~.

Claim 4. (currently amended) Multiband Radio System according to claim 1,
wherein ~~characterized in that~~

said receiving branch ~~(RX)~~ further comprises a demodulator ~~(RSW)~~ for downconverting a received RF signal to IF and said transmitting branch ~~(TX)~~ further comprises a modulator ~~(TSW)~~ for upconverting an IF signal to be transmitted to RF,

either one of said demodulator ~~(RSW)~~ and said modulator ~~(TSW)~~ receives a carrier signal output from an oscillator ~~(CS)~~ via a receive/transmit switch ~~(RTSW)~~ which is actuated by a receive/transmit control signal ~~(RTCS)~~.

Claim 5. (currently amended) Multiband Radio System according to claim 1,
~~characterized in that~~ wherein it is a HiperLAN or an IEEE802 system.

Claim 6. (currently amended) Method for operating a multiband radio system comprising a receiving branch ~~(RX)~~ and a transmitting branch ~~(TX)~~ ~~characterized by for~~ controlling radio frequency filters included within said receiving branch ~~(RX)~~ and said transmitting branch ~~(TX)~~, respectively, in receiving mode so that radio signals of a frequency band which are passed through in the receiving branch ~~(RX)~~ are blocked in the transmitting branch ~~(TX)~~.

Claim 7. (currently amended) Method according to claim 6, ~~characterized by,~~
wherein in a receiving mode of said multiband radio system, the steps of connecting, in each of
said receiving and transmitting branches ~~(RX, TX)~~, one of at least two radio frequency filters
~~(RF1, RF2; TF1, TF2)~~ having a stop band function for given frequency bands, said frequency
bands being different from each other, between a respective pair of at least one pair of
multiplexer switches ~~(TSW1, TSW2; RSW1, RSW2)~~ for selecting a respective one of said radio
frequency filters ~~(RF1, RF2; TF1, TF2)~~.

Claim 8. (new) Multiband Radio System, comprising:
a receiving branch configured and adapted for performing a receiving operation at a
selected one of a plurality of different frequency bands;
a transmitting branch configured and adapted for performing a transmitting operation at
said selected one of said plurality of different frequency bands at times distinct from times of
said receiving operation; and
a receiving/transmitting filter selector configured and adapted for controlling radio
frequency filters included within said receiving branch and said transmitting branch,
respectively, such that, during said receiving operation, radio signals of said selected frequency
band pass through said receiving branch and are blocked in the transmitting branch.

Claim 9. (new) Multiband Radio System, comprising:
a receiving branch configured and adapted for performing a receiving operation at a
selected one of a plurality of different frequency bands;

a transmitting branch configured and adapted for performing a transmitting operation at said selected one of said plurality of different frequency bands at times distinct from times of said receiving operation; and

a receiving/transmitting filter selector, wherein

each of said receiving branch and said transmitting branch respectively comprises a plurality of filtering signal paths configured and adapted to pass a respective one of said plurality of different frequency bands and to attenuate others of said plurality of different frequency bands; and

said receiving/transmitting filter selector is configured and adapted for controlling a signal receiving path of said receiving branch and a signal transmission path of said transmitting branch such that during said receiving operation a received signal in said receiving branch passes a filtering signal path that passes said selected frequency band without passing a filtering signal path that attenuates said selected frequency band and a transmission signal in said transmitting branch passes at least one of said filtering signal paths that attenuates said selected frequency band.

Claim 10. (new) Method for operating a multiband radio system, comprising the steps of:

performing a receiving operation at a selected one of a plurality of different frequency bands;

performing a transmitting operation at said selected one of said plurality of different frequency bands at times distinct from times of said receiving operation; and

controlling radio frequency filters included within said receiving branch and said

transmitting branch, respectively, such that, during said receiving operation, radio signals of said selected frequency band pass through said receiving branch and are blocked in the transmitting branch.

Claim 11. (new) Method for operating a multiband radio system comprising a receiving branch and a transmitting branch, each of said receiving branch and said transmitting branch respectively comprising a plurality of filtering signal paths corresponding to a plurality of different frequency bands, each of said filtering signal paths configured and adapted to pass a respective one of said plurality of different frequency bands and to attenuate others of said plurality of different frequency bands, said method comprising the steps of:

performing a receiving operation at a selected one of a plurality of different frequency bands;

performing a transmitting operation at said selected one of said plurality of different frequency bands at times distinct from times of said receiving operation; and

controlling a signal receiving path of said receiving branch and a signal transmission path of said transmitting branch, such that, during said receiving operation a received signal in said receiving branch passes a filtering signal path that passes said selected frequency band without passing a filtering signal path that attenuates said selected frequency band and a transmission signal in said transmitting branch passes at least one of said filtering signal paths that attenuates said selected frequency band.